



# Launch Mission Execution Forecast

**Mission:** Falcon 9 Starlink L-19

**Issued:** 12 Feb 2021 / 0930L (1430Z)

**Valid:** 13 Feb 2021 / 2332 – 2353L (14 Feb 0432 – 0453Z)



**Forecast Discussion:** Southerly flow ahead of an approaching front will continue to usher in unseasonably warm and moist air today and through the weekend. The front will stall out over northern Florida tomorrow, keeping Central Florida warm and humid. The boundary will remain fairly stationary Saturday night and Sunday, which will focus the worst conditions just to our north. However, the southerly flow in our area ahead of the boundary will continue to pump in plentiful moisture along with the potential for evening showers and isolated thunderstorms on Saturday. Thus, the primary concerns for Saturday are the Thick Cloud Layer Rule due to high moisture content in the mid-levels, as well as the Cumulus Cloud Rule and the Surface Electric Field Rule due to lingering evening convection.

For the backup day, the front is expected to waver slightly southwards, but will still remain north of the area. It will be a fairly similar setup to Saturday night, with a high moisture levels leading to the threat for mid-level cloud cover, showers, and isolated thunderstorms. Therefore, the primary concerns remain the same for the backup day.

Launch Day	Probability of Violating Weather Constraints							
	60%	Primary Concerns: Thick Cloud Layer Rule, Cumulus Cloud Rule, Surface Electric Field Rule						
	Weather Conditions					Additional Risk Criteria		
	Weather/Visibility:	Sct Showers / 7 mi.	Clouds				Upper-Level Wind Shear:	Low
	Temp/Humidity:	70°F / 90%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather:	Moderate
24-Hour Delay	Liftoff Winds (200'):	180° 12 - 17 mph	Cumulus	Scattered	3,000	10,000	Solar Activity:	Low
	Probability of Violating Weather Constraints							
	60%	Primary Concerns: Thick Cloud Layer Rule, Cumulus Cloud Rule, Surface Electric Field Rule						
	Weather Conditions					Additional Risk Criteria		
	Weather/Visibility:	Sct Showers / 7 mi.	Clouds				Upper-Level Wind Shear:	Low
Temp/Humidity:	69°F / 90%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather:	Moderate	
Liftoff Winds (200'):	180° 10- 15 mph	Cumulus	Scattered	3,000	10,000	Solar Activity:	Low	
		Altostratus	Broken	12,000	17,000			
<b>Note:</b> The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear, booster recovery weather, and solar activity.								
Next Forecast Will Be Issued		As Required						